FUJITSU COMPUTERS
SIEMENS

SPARC® Enterprise M4000/M5000 Servers Product Notes

For XCP version 1060

Order No. U41759-J-Z816-1-76
Part No. 820-3790-10
November 2007, Revision A

Copyright 2007 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. and FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa-ken 211-8588, Japan. All rights reserved.

Sun Microsystems, Inc. and Fujitsu Limited each own or control intellectual property rights relating to products and technology described in this document, and such products, technology and this document are protected by copyright laws, patents and other intellectual property laws and international treaties. The intellectual property rights of Sun Microsystems, Inc. and Fujitsu Limited in such products, technology and this document include, without limitation, one or more of the United States patents listed at http://www.sun.com/patents and one or more additional patents or patent applications in the United States or other countries.

This document and the product and technology to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of such product or technology, or of this document, may be reproduced in any form by any means without prior written authorization of Fujitsu Limited and Sun Microsystems, Inc., and their applicable licensors, if any. The furnishing of this document to you does not give you any rights or licenses, express or implied, with respect to the product or technology to which it pertains, and this document does not contain or represent any commitment of any kind on the part of Fujitsu Limited or Sun Microsystems, Inc., or any affiliate of either of them.

This document and the product and technology described in this document may incorporate third-party intellectual property copyrighted by and/or licensed from suppliers to Fujitsu Limited and/or Sun Microsystems, Inc., including software and font technology.

Per the terms of the GPL or LGPL, a copy of the source code governed by the GPL or LGPL, as applicable, is available upon request by the End User. Please contact Fujitsu Limited or Sun Microsystems, Inc.

This distribution may include materials developed by third parties.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, Java, Netra, Solaris, Sun Ray, Answerbook2, docs.sun.com, OpenBoot, and Sun Fire are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

Fujitsu and the Fujitsu logo are registered trademarks of Fujitsu Limited.

All SPARC trademarks are used under license and are registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon architecture developed by Sun Microsystems, Inc.

SPARC64 is a trademark of SPARC International, Inc., used under license by Fujitsu Microelectronics, Inc. and Fujitsu Limited.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

United States Government Rights - Commercial use. U.S. Government users are subject to the standard government user license agreements of Sun Microsystems, Inc. and Fujitsu Limited and the applicable provisions of the FAR and its supplements.

Disclaimer: The only warranties granted by Fujitsu Limited, Sun Microsystems, Inc. or any affiliate of either of them in connection with this document or any product or technology described herein are those expressly set forth in the license agreement pursuant to which the product or technology is provided. EXCEPT AS EXPRESSLY SET FORTH IN SUCH AGREEMENT, FUJITSU LIMITED, SUN MICROSYSTEMS, INC. AND THEIR AFFILIATES MAKE NO REPRESENTATIONS OR WARRANTIES OF ANY KIND (EXPRESS OR IMPLIED) REGARDING SUCH PRODUCT OR TECHNOLOGY OR THIS DOCUMENT, WHICH ARE ALL PROVIDED AS IS, AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID. Unless otherwise expressly set forth in such agreement, to the extent allowed by applicable law, in no event shall Fujitsu Limited, Sun Microsystems, Inc. or any of their affiliates have any liability to any third party under any legal theory for any loss of revenues or profits, loss of use or data, or business interruptions, or for any indirect, special, incidental or consequential damages, even if advised of the possibility of such damages.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Please
Recycle

Copyright 2007 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. et FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki-shi, Kanagawa-ken 211-8588, Japon. Tous droits réservés.

Entrée et revue tecnical fournies par Fujitsu Limited sur des parties de ce matériel.

Sun Microsystems, Inc. et Fujitsu Limited détiennent et contrôlent toutes deux des droits de propriété intellectuelle relatifs aux produits et technologies décrits dans ce document. De même, ces produits, technologies et ce document sont protégés par des lois sur le copyright, des brevets, d'autres lois sur la propriété intellectuelle et des traités internationaux. Les droits de propriété intellectuelle de Sun Microsystems, Inc. et Fujitsu Limited concernant ces produits, ces technologies et ce document comprennent, sans que cette liste soit exhaustive, un ou plusieurs des brevets déposés aux États-Unis et indiqués à l'adresse http://www.sun.com/patents de même qu'un ou plusieurs brevets ou applications brevetées supplémentaires aux États-Unis et dans d'autres pays.

Ce document, le produit et les technologies afférents sont exclusivement distribués avec des licences qui en restreignent l'utilisation, la copie, la distribution et la décompilation. Aucune partie de ce produit, de ces technologies ou de ce document ne peut être reproduite sous quelque forme que ce soit, par quelque moyen que ce soit, sans l'autorisation écrite préalable de Fujitsu Limited et de Sun Microsystems, Inc., et de leurs éventuels bailleurs de licence. Ce document, bien qu'il vous ait été fourni, ne vous confère aucun droit et aucune licence, expresses ou tacites, concernant le produit ou la technologie auxquels il se rapporte. Par ailleurs, il ne contient ni ne représente aucun engagement, de quelque type que ce soit, de la part de Fujitsu Limited ou de Sun Microsystems, Inc., ou des sociétés affiliées.

Ce document, et le produit et les technologies qu'il décrit, peuvent inclure des droits de propriété intellectuelle de parties tierces protégés par copyright et/ou cédés sous licence par des fournisseurs à Fujitsu Limited et/ou Sun Microsystems, Inc., y compris des logiciels et des technologies relatives aux polices de caractères.

Par limites du GPL ou du LGPL, une copie du code source régi par le GPL ou LGPL, comme applicable, est sur demande vers la fin utilsateur disponible; veuillez contacter Fujitsu Limted ou Sun Microsystems, Inc.

Cette distribution peut comprendre des composants développés par des tierces parties.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, Java, Netra, Solaris, Sun Ray, Answerbook2, docs.sun.com, OpenBoot, et Sun Fire sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays.

Fujitsu et le logo Fujitsu sont des marques déposées de Fujitsu Limited.

Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

SPARC64 est une marques déposée de SPARC International, Inc., utilisée sous le permis par Fujitsu Microelectronics, Inc. et Fujitsu Limited.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une license non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui, en outre, se conforment aux licences écrites de Sun.

Droits du gouvernement américain - logiciel commercial. Les utilisateurs du gouvernement américain sont soumis aux contrats de licence standard de Sun Microsystems, Inc. et de Fujitsu Limited ainsi qu'aux clauses applicables stipulées dans le FAR et ses suppléments.

Avis de non-responsabilité: les seules garanties octroyées par Fujitsu Limited, Sun Microsystems, Inc. ou toute société affiliée de l'une ou l'autre entité en rapport avec ce document ou tout produit ou toute technologie décrit(e) dans les présentes correspondent aux garanties expressément stipulées dans le contrat de licence régissant le produit ou la technologie fourni(e). SAUF MENTION CONTRAIRE EXPRESSÉMENT STIPULÉE DANS CE CONTRAT, FUJITSU LIMITED, SUN MICROSYSTEMS, INC. ET LES SOCIÉTÉS AFFILIÉES REJETTENT TOUTE REPRÉSENTATION OU TOUTE GARANTIE, QUELLE QU'EN SOIT LA NATURE (EXPRESSE OU IMPLICITE) CONCERNANT CE PRODUIT, CETTE TECHNOLOGIE OU CE DOCUMENT, LESQUELS SONT FOURNIS EN L'ÉTAT. EN OUTRE, TOUTES LES CONDITIONS, REPRÉSENTATIONS ET GARANTIES EXPRESSES OU TACITES, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE À LA QUALITÉ MARCHANDE, À L'APTITUDE À UNE UTILISATION PARTICULIÈRE OU À L'ABSENCE DE CONTREFAÇON, SONT EXCLUES, DANS LA MESURE AUTORISÉE PAR LA LOI APPLICABLE. Sauf mention contraire expressément stipulée dans ce contrat, dans la mesure autorisée par la loi applicable, en aucun cas Fujitsu Limited, Sun Microsystems, Inc. ou l'une de leurs filiales ne sauraient être tenues responsables envers une quelconque partie tierce, sous quelque théorie juridique que ce soit, de tout manque à gagner ou de perte de profit, de problèmes d'utilisation ou de perte de données, ou d'interruptions d'activités, ou de tout dommage indirect, spécial, secondaire ou consécutif, même si ces entités ont été préalablement informées d'une telle éventualité.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFACON.

Contents

Preface vii

Technical Support vii

Software Resources vii

Accessing Documentation viii

Fujitsu Siemens Computers Welcomes Your Comments viii

SPARC Enterprise M4000/M5000 Servers Product Notes 1

Supported Versions of Firmware and Software 1

Patch Information 2

Known Issues 4

General Functionality Issues and Limitations 4

Notes for XCP 1050 or Later 5

Notes for XSCF Web 5

Hardware Installation and Service Issues 6

Specific Issues and Workarounds 6

Cautions for mounting the server in the 19-inch rack 7

Hardware Documentation Updates 9

Electrical Specifications 11

Cable Connections 12

Updates of the SPARC Enterprise M4000/M5000 Servers Service Manual 13

Installing the PCI Cassette 13
DIMM Replacement 14
Software Issues 15
XCP Issues and Workarounds 15
Solaris Issues and Workarounds 19
Identifying Permanent Memory in a Target Board 30
Preparing to Upgrade to XCP 1050 or later 30
Software Documentation Updates 34

Preface

These product notes contain late-breaking information about the SPARC® Enterprise M4000/M5000 server hardware, software, or documentation that became known after the documentation set was published.

Technical Support

If you have technical questions or issues that are not addressed in the SPARC Enterprise M4000/M5000 servers documentation, contact a sales representative or a certified service engineer.

Software Resources

The Solaris™ Operating System and Sun Java™ Enterprise System software are preinstalled on your SPARC Enterprise M4000/M5000 servers.

Contact a sales representative or a certified service engineer for software resources for your SPARC Enterprise M4000/M5000 servers.

Note – For latest patch information go to:
http://support.fujitsu-siemens.com

Installation information and README files are included in the patch download.

Accessing Documentation

Instructions for installing, administering, and using your SPARC Enterprise M4000/M5000 servers are provided in the SPARC Enterprise M4000/M5000 servers documentation set.
The documentation set is available for download from the following website:

http://manuals.fujitsu-siemens.com/

Note – Information in these product notes supersedes the information in the SPARC Enterprise M4000/M5000 servers documentation set.

Solaris documentation is available at:
http://www.sun.com/documentation

Fujitsu Siemens Computers Welcomes Your Comments

If you have any comments or requests regarding this manual, or if you find any unclear statements in the manual, please state your points specifically, and forward it to a sales representative or a certified service engineer.

Please include the title and part number of your document with your feedback.

SPARC Enterprise M4000/M5000 Servers Product Notes

These product notes contain late-breaking information about the SPARC® Enterprise M4000/M5000 server hardware, software, or documentation that became known after the documentation set was published.

- Supported Versions of Firmware and Software
- Patch Information
- Known Issues
- Notes for XCP 1050 or Later
- Notes for XSCF Web
- Hardware Installation and Service Issues
- Hardware Documentation Updates
- Software Issues
- Software Documentation Updates

Supported Versions of Firmware and Software

The following firmware and software versions are supported in this release:

- XSCF Control Package (XCP) 1060 or later

  You can download the latest files of firmware at the following websites.

  Global Site:

  `http://www.fujitsu.com/sparcenterprise/firmware/`

Japanese Site:

`http://primeserver.fujitsu.com/sparcenterprise/download/firmware/`

Note – When the XCP version preinstalled in your server is under XCP 1060, you must upgrade to XSCF Control Package(XCP) 1060 or later. Use the web browser interface, also known as the browser user interface (BUI), to import XCP firmware and then execute the `flashupdate`(8) command to upgrade the XCP firmware with the XSCF Shell.

Caution – CR ID #6534471: Improper handling of large page in kernel memory may cause random panics. Implement the workaround for CR ID #6534471 or check for the availability of a patch and install it immediately. This bug has been fixed by 125100-06 and Solaris 10 8/07.

- The first version of the Solaris™ Operating System (OS) to support these servers is the Solaris 10 11/06 OS.

Note – It is required that all SPARC Enterprise M4000/M5000 servers be upgraded to XCP 1050 or later in order to support adding future COD Right To Use (RTU) licenses. Contact your local Service Representative for assistance.

Patch Information

This section lists mandatory patches for the SPARC Enterprise M4000/M5000 servers.

These patches are not required for servers running Solaris 10 8/07 OS.

- 118833-36 (Install 118833-36 before 125100-04.)
- 125100-04 or later
- 120068-03 or later
- 123839-07 or later
- 125424-01 or later
- 125075-01 or later
- 125670-02 or later

Note – See "Software Resources" on page vii for information on how to find the latest patches. Installation information and README files are included in the patch download.

Known Issues

This section describes known issues in this release.

General Functionality Issues and Limitations

Caution – For dynamic reconfiguration (DR) and hot-plug issues, see TABLE 7.

- Domains using the ZFS file system can not use Dynamic Reconfiguration.
- SPARC Enterprise M4000/M5000 servers are cold service machines. Hot-swapping of the CPU/Memory board unit (CMU), I/O Unit (IOU), or any eXtended System Control Facility (XSCF) unit is not supported.
- For this XCP release, the XSCF web browser interface, also known as the browser user interface (BUI) does not support the External I/O Expansion Unit Manager feature.
- The XSCF web browser interface, also known as the browser user interface (BUI), supports new feature concerning the COD configuration.
- The XSCF does not support the Log Archiving feature.
- When using XSCF as the NTP server of the domain, configure it so as not to block the ICMP protocol of the DNS server and the NTP server which the XSCF refers to.
- When you use the external power control interface (EPC) of the external power controller, the following notification signals are not supported;
  - the OS panic or the server hardware error signal (*CPUN/RTNU)
  - the server hardware error signal (power fail, temperature error, and fan error) (*ALARM)
- For 1027A-Z/X1027A-Z, PCIe Dual 10 Gigabit Ethernet Fiber XFP cards, these limits apply:
  - Do not use more than two cards in an External I/O Expansion Unit.
  - Do not use these cards in an External I/O Expansion Unit.
- For 4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP cards, these maximum limits apply:
  - No more than two cards per I/O boat
  - No more than four cards in a SPARC Enterprise M4000 server
  - No more than eight cards in a SPARC Enterprise M5000 server

- To complete updating the OpenBoot PROM firmware in the target domain, be sure to power off/on the domain.
- In case that Solaris OS is a single user mode, if you switch from the domain console to the XSCF Shell, Solaris OS might be started up to multi-user mode. When you operate the single user mode for Solaris OS, don't switch from the domain console to the XSCF Shell.
- We recommend the domain to use the XSCF Unit as NTP server. In this case, needs the following attention.
  - XSCF must be connected to an external NTP server
  - When you connect one or more NTP servers in addition to XSCF, connect the same NTP server as XSCF is using

  For details on NTP server, contact your technical support. For details on NTP settings, refer to the *SPARC Enterprise M4000/M5000/M8000/M9000 servers XSCF User's Guide*.

Notes for XCP 1050 or Later

You cannot use the following user account names, as they are reserved for system use: root, bin, daemon, adm, operator, nobody, sshd, rpc, rpcuser, ldap, apache, ntp, admin, and default.

Notes for XSCF Web

- Using the XSCF Web, when you import XCP or update the firmware, Session ID error may be displayed on the web browser. And in the Autologout setting, when you specify the timeout period as over 30 minutes, Internal Server Error may be displayed when you perform the firmware update.
- When you use the XSCF Web, if a plug-in such as the search tool installed with the browser, remove the plug-in or disable the pop-up blocking.

Hardware Installation and Service Issues

This section describes hardware specific issues and workarounds.

Specific Issues and Workarounds

TABLE 1 lists known hardware issues and possible workarounds.

TABLE 1 Hardware Issues and Workarounds

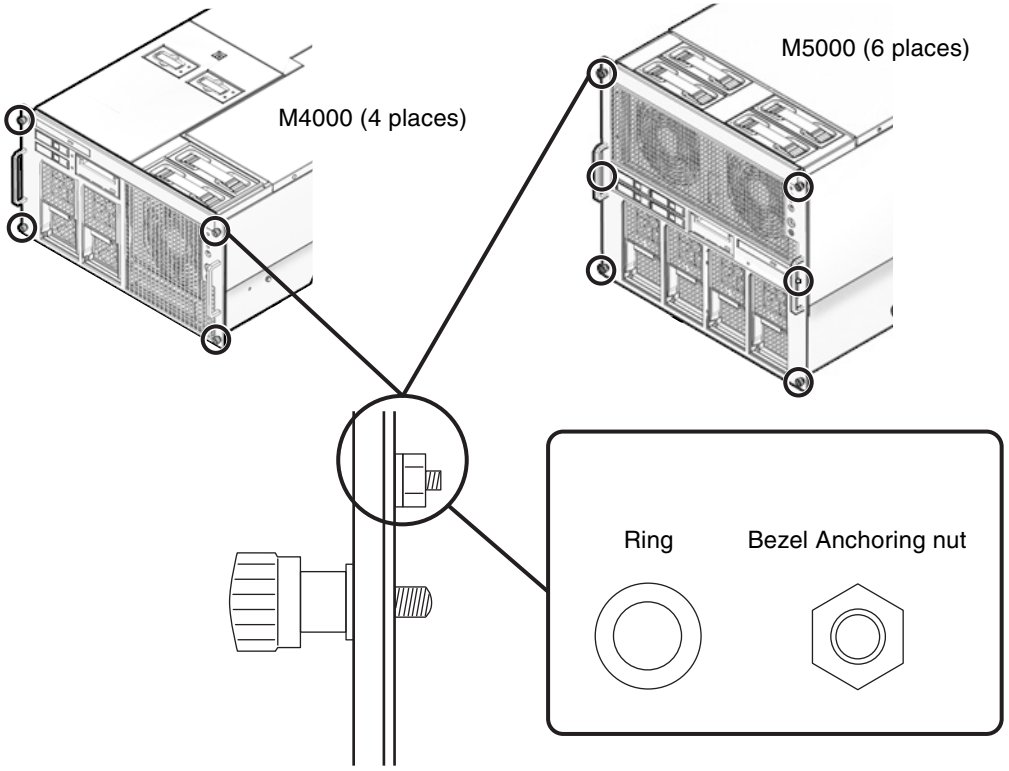
CR ID	Description	Workaround
6433420	The domain console might display a Mailbox timeout or IOCB interrupt timeout error during boot.	Issue a `reset -all` command from the OpenBoot PROM (`OK`) prompt and reboot.
6488846	During boot, the domain console might display a checksum error for the SG(X)PCI2SCSIU320-Z SCSI controller I/O card.	Check for the availability of the latest controller card firmware.
6498780	On the SPARC Enterprise M4000/M5000 servers, the OpenBoot PROM (OBP) might not detect the on-board disk (HDD) boot device. Performing a `boot disk` results in a console message: `Can't locate boot device`	The PCI or PCI-X plug-in adapter card might not be seated correctly. Reseat the card in slot 0 of the IOU.

Cautions for mounting the server in the 19-inch rack

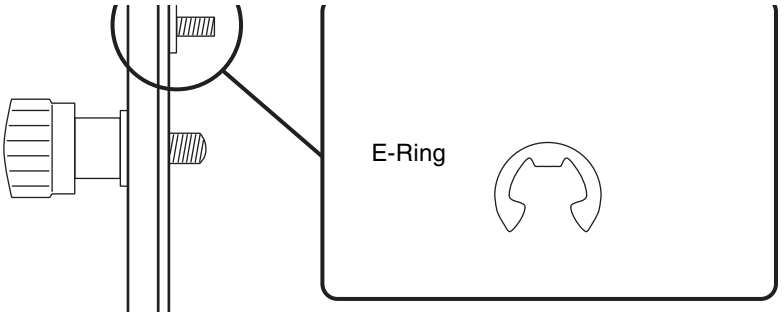
When you mount the SPARC Enterprise M4000 or M5000 server on the 19-inch rack, as you insert it all the way seated in the rack, the nut anchoring the bezel may interfere with the rack column and the server may fail to be seated correctly.

In such a case, please replace the bezel anchoring nut and ring with the E-Ring.

1. **Remove the interfering bezel anchoring nut and ring.**



2. **In place of the removed nut and ring, attach the E-Ring, included in the rack mount kit.**



3. **Insert the server all the way seated in the rack, to lock it in place.**

Hardware Documentation Updates

TABLE 2 lists known documentation updates.

TABLE 2 Documentation Updates

Title	Page Number	Update
All SPARC Enterprise M4000/M5000 servers documentation		All DVD references are now referred to as CD-RW/DVD-RW. Updated glossary terms: ***External I/O Expansion Unit*** — A rack mountable device to add-on PCI slots. It is connected to the system's I/O unit through the PCIe connection and contains one or two I/O boats. ***I/O boat*** — An I/O unit in the External I/O Expansion Unit. The I/O boat connects to a PCI-Express (PCIe) slot through a PCIe switch or a PCI-X bridge on the I/O boat and offers either six PCI-X slots or six PCIe slots.
SPARC Enterprise M4000/M5000 Servers Site Planning Guide	1-7	TABLE 1-3 "Midrange Servers Physical Specifications" Correct numerical value of "Depth" is 810mm/31.9 in. for the SPARC Enterprise M4000/M5000 servers.
SPARC Enterprise M4000/M5000 Servers Installation Guide	2-8	TABLE 2-3 "Powercords" See "Cable Connections" on page 12 for the changes.
SPARC Enterprise M4000/M5000 Servers Installation Guide	3-3	3.3, "Connecting the Administration Console". The RJ-11 connector at the top of Figure 3-1 was not labelled. The RJ-11 connector is not for connection to TNV circuits. Do not use this connector.
SPARC Enterprise M4000/M5000 Servers Service Manual	1-4	1.3.4, "Handling Components" The following caution will be added. **Caution –** In the PCI cassette part, when removing cables such as LAN cable, if your finger can't reach the latch lock of the connector, press the latch with a flathead screwdriver to remove the cable. Forcing your finger into the clearance can cause damage to the PCI card.

TABLE 2 Documentation Updates *(Continued)*

Title	Page Number	Update
SPARC Enterprise M4000/M5000 Servers Service Manual	4-11	4.4.3, "Powering the Server Off Manually" Step 4 "Verify the state of the status XSCF STANDBY LED on the operator panel is off" should be replaced with the following description: "Verify the state of the status Power LED on the operator panel is off."
SPARC Enterprise M4000/M5000 Servers Service Manual	8-5	8.1.2, "Removing the PCI Cassette" The cable management arm of the SPARC Enterprise M4000 server will not be supported. The following note will be deleted accordingly. Note - The cable management arm of the SPARC Enterprise M4000 server might obstruct access to the PCI cassettes. Do not force the arm out of the way of the cassettes, because it will become permanently bent. Pull the quick release button and disconnect the slide end of the arm. Once disconnected, the arm can be safely held out of the way when removing the cassettes. Instead, the following caution will be added. **Caution –** When removing cables such as LAN cable, if your finger can't reach the latch lock of the connector, press the latch with a flathead screwdriver to remove the cable. Forcing your finger into the clearance can cause damage to the PCI card.
SPARC Enterprise M4000/M5000 Servers Service Manual	8-6	8.1.3, "Installing the PCI Cassette" See "Installing the PCI Cassette" on page 13 for the changes.
SPARC Enterprise M4000/M5000 Servers Service Manual		"Cold Replacement" "This step includes turning the keyswitch to the Service position, verifying the state of the LEDs and disconnecting power cables" should be substituted with the following description: "This step includes turning the keyswitch to the Service position, verifying that the Power LED is turned off and disconnecting power cables."

TABLE 2 Documentation Updates *(Continued)*

Title	Page Number	Update
SPARC Enterprise M4000/M5000 Servers Service Manual	9-1 15-1	CHAPTER 9, "XSCF Unit Replacement" CHAPTER 15, "Operator Panel Replacement" The following important message will be added. **Note –** If you replace the XSCF unit and the operator panel simultaneously, system will not operate normally. Execute the `showhardconf` command or the `showstatus` command to confirm that the component replaced earlier is operating normally, before replacing the subsequent FRU.
SPARC Enterprise M4000/M5000 Servers Service Manual	11-7	11.2, "DIMM Replacement" See "DIMM Replacement" on page 14 for the changes.
SPARC Enterprise M4000/M5000 Servers Service Manual	C-7	TABLE C-5 "Power Supply Feature" See "Electrical Specifications" on page 11 for the changes.

Electrical Specifications

The following changes belong in the SPARC Enterprise M4000/M5000 Servers Service Manual.

TABLE 3 Power Supply Features

	SPARC Enterprise M4000	SPARC Enterprise M5000
Power draw (maximum)	2016W	3738W
Volt Ampere	2058 VA	3815 VA
Heat	6879 BTUs/hr (7258 kJ/hr)	12754 BTUs/hr (13457 kJ/hr)

Cable Connections

The following changes belong in the SPARC Enterprise M4000/M5000 Servers Installation Guide.

TABLE 4 Powercords

System	Location	Powercord Type
SPARC Enterprise M4000 Server	Americas, Taiwan	NEMA L5-15 125V 15A
	Japan, Korea	NEMA L6-20 250V 20A
	RoTW	IEC60309 16A 250V, 3PIN with IEC320 C20
SPARC Enterprise M5000 Server	Americas, Taiwan	NEMA L5-15 125V 15A
	Japan, Korea	NEMA L6-20 250V 20A
	RoTW	IEC60309 16A 250V, 3PIN with IEC320 C20

Updates of the SPARC Enterprise M4000/M5000 Servers Service Manual

The following information supersedes the information in the *SPARC Enterprise M4000/M5000 Servers Service Manual*.

Installing the PCI Cassette

Caution – Do *not force* the PCI cassette into a slot. Doing so can cause damage to the cassette and server.

1. **Align the PCI cassette on the gray plastic guide and install it into the slot.**
2. **Lock the lever into place to seat the cassette.**

Note – As the lever is moved pressure will build up, then just prior to locking into place the pressure will suddenly release. If the lever locks in place without the pressure release, the card may not be seated correctly. If this happens the card should be removed and reinstalled.

Note – When you insert the PCI cassette using hot-swap, the cassette is automatically powered on and configured. Check that the power LED on the cassette is LIT to be certain the cassette is correctly seated.

3. **Connect all cables to the PCI cassette and reconnect the cable management arm if necessary.**

DIMM Replacement

The DIMMs are cold FRU replacement components. The entire server must be powered off and the power cords disconnected to replace the DIMMs.

You can mount up to 4 memory boards on the SPARC Enterprise M4000 server and up to 8 memory boards on the SPARC Enterprise M5000 server. The DIMMs on the memory board are grouped into group A and group B.

Here are the DIMM mount conditions:

DIMM mounting rules:

- Four(4) DIMMs per group can be mounted.
- Capacity of the DIMMs in group A must be equal to or larger than the capacity of the DIMMs in group B.
- The capacity of the DIMMs in group B must be equal to or less than the capacity of the DIMMs in group A. DIMMs in group B are optional.
- For both groups, DIMMs must be of the same capacity and rank within a group. DIMMs of different capacity cannot be mixed in a group.

Software Issues

This section describes software specific issues and workarounds.

XCP Issues and Workarounds

TABLE 6 lists known XCP issues and possible workarounds.

TABLE 6 XCP Issues and Workarounds

ID	Description	Workaround
RTIF1-070418-009	While XSCF is running, a process may go down, a watchdog timeout may occur, or a hang-up may occur. After this, XSCF may reset.	Check that XSCF is started. If not started, use the `rebootxscf`(8) command to restart XSCF, or stop all the domains and then execute the system power off/on (AC OFF/ON).
RTIF1-070528-002	While XSCF is running, watchdog timeout may occur and XSCF may reboot.	Check that XSCF is started. If not started, use the `rebootxscf`(8) command to restart XSCF, or stop all the domains and then execute the system power off/on (AC OFF/ON).
RTIF1-070823-001	Using the XSCF Web, when you selected SSH on the snapshot screen, the maximum number of character input for Host, Directory, ID, and Password doesn't correspond to the maximum number of character input on the XSCF Shell.	To specify the value which exceeds the maximum number of character input for the XSCF Web, use XSCF Shell.
RTIF1-070823-003	When you display the Logical tree on the XSCF Web, the hardware configuration of CPU or memory which assigned to the domain appears differently from the actual domain configuration.	On the Menu, select Device Status to refer to the domain hardware configuration. Or use the `showdevices`(8) command to refer to the domain hardware configuration.
RTIF1-070824-002	On the XSCF Web, when you select Domain Mode Configuration to perform various settings, the pop-up screen may not appear but "Undefined" may be displayed on the screen.	Select Domain Mode Configuration one more time and perform the settings. Or once terminate the XSCF Web and then perform the settings.
RTIF1-070824-004	On the XSCF Web, on the Domain Status screen, when you select an XSB displayed on the Domain Component List, and in case the selected XSB is not yet mounted or is Uni-XSB, the pop-up screen displays no data.	None available at this time.

TABLE 6 XCP Issues and Workarounds *(Continued)*

ID	Description	Workaround
RTIF1-070824-005	On the XSCF Web, when you changed the Refresh Interval value of the Monitor Message Frame, the invalid pop-up "Confirmation Domain mode" may appear.	Ignore the pop-up and close the screen.
RTIF1-070824-006	On the tab browser, to the same host, when you perform multiple log-in with the user accounts of different user privileges, the user privilege of the last log-in user account will be applied to those pages which you've already logged in.	When you use the tab browser, do not perform multiple log-in to the same host.
RTIF1-070824-008	On the Domain Configuration screen, when you select an undefined Domain ID, the Configuration Policy remains as the content which previously displayed.	None available at this time.
RTIF1-070824-011	While using FireFox2, in the Configuration policy setting on the Domain Configuration screen, when you specify a domain which is in operation, an error display pop-up appears. When you click on the Back button on this error display pop-up and click on the Cancel button on the inquiry screen to re-display the data, the system remains in the error message screen.	From the Menu, select the Domain Configuration page again.
RTIF1-070904-003	An incorrect domain state is reported. After the command `sendbreak`(8) is issued to a domain, showdomainstatus shows the state as "Running" when the domain is at the "`ok`" prompt.	There is no workaround. This is a side effect of the `sendbreak`(8) operation.
RTIF1-070904-004	The latest communication field in `showarchiving`(8) command is not updated regularly.	Disabling and re-enabling archiving refreshes the Latest communication field in `showarchiving`(8) output.
RTIF1-070904-006	While executing the domain power-on, domain reset or DR, in case the XSCF reboot occurred, the process may be aborted in some or all of the XSB.	Execute the domain reset one more time, or power off the domain and then power on again.
RTIF1-070914-006	When you set the XSCF user account name to the maximum 32 characters, you can log in, but then, when you execute the XSCF Shell or operate the XSCF Web, "Permission denied" occurs.	Use up to 31 characters to set the XSCF user account name.

TABLE 6 XCP Issues and Workarounds *(Continued)*

ID	Description	Workaround
RTIF1-070914-019	The CLI '`showldap -c`' (which displays current LDAP certificates) will show proper data only when used with the same user account that had originally provided certificate information using '`setldap -c`'. Any other user account will generate "Permission denied" error. Similarly, the XSCF Web's LDAP Configuration pop-up screen will display no data, when a different user account is used.	Use the same user account for all LDAP display or configuration operations, for both CLI and XSCF Web.
RTIF1-070914-020	On the User Account setting page on the User Manager screen, after the password change resulted in "Change Password Error," when you click on the REFRESH button, there appears the error message "No user. The request is aborted."	To change the password, select User Manager on the Menu again.
RTIF1-070914-021	During the Open BootPROM process, when you power off the domain, the error log of Domain hang-up detected (level3) may be registered.	This error log can be safely ignored.
RTIF1-070914-023	When you specify the domain ID or XSB number which are not supported on the machine, there appears the parameter error message.	To specify the available domain ID or XSB number on the machine.
RTIF1-071102-001	The XSCF firmware monitors itself and if it detects any inconsistencies, it forces an XSCF reboot.	There is no workaround. Allow the XSCF Unit to finish rebooting. It returns to normal operation within approximately 5 minutes.
RTIF1-071102-002	The snmp daemon might quit.	To restart the snmp daemon, issue the command `setsnmp enable`.
RTIF1-071116-001	After using the `addfru`(8) or `replacefru`(8) command to hotplug a CMU, further DR operations might fail with a misleading message regarding the board being unavailable for DR.	When performing the `addfru`(8) and `replacefru`(8) commands, it is mandatory to run diagnostic tests. If you forget to run the diagnostic tests during `addfru`(8)/`replacefru`(8) then either run `testsb`(8) to test the CMU or remove the CMU/IOU with the `deletefru`(8) command and then use the `addfru`(8) command with the diagnostic tests.
RTIF1-071116-003	Using the XSCF Web, when you selected COD, codusage details cannot be displayed correctly.	Use `showcodusage`(8) command to display the codusage.

TABLE 6 XCP Issues and Workarounds *(Continued)*

ID	Description	Workaround
RTIF1-071116-004	When Internet Explorer 7 browser is used, the License key deletion cannot be executed on the BUI COD page.	Use other browsers: • Microsoft Internet Explorer 6.0 • Firefox 2.0 or later • Netscape Navigator 7.1 or later
RTIF1-071116-004	When Internet Explorer 7 browser is used, the License key deletion cannot be executed on the BUI COD page.	Use `deletecodlicense`(8) command to delete a license key. Or use other browsers: • Microsoft Internet Explorer 6.0 • Firefox 2.0 or later • Netscape Navigator 7.1 or later

Solaris Issues and Workarounds

TABLE 7 lists known issues and possible workarounds.

TABLE 7 Specific Issues and Workarounds Concerning Solaris

CR ID	Description	Workaround
6348554	Using the `cfgadm -c disconnect` command on the following cards might hang the command during i_mdi_pi_offline: • SG-XPCIE2FC-QF4 Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA • SG-XPCIE1FC-QF4 Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-E HBA • SG-XPCI2FC-QF4 Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-X HBA • SG-XPCI1FC-QF4 Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-X HBA	There is no workaround. Check for the patch 126670-10 for this defect.
6416224	System performance can degrade using a single NIC card with more than 5,000 connections.	Use multiple NIC cards to split network connections. This bug has been fixed in Solaris 10 8/07.
6440061	The domain console may display this message: `ipsec_check_inbound_policy: Policy Failure for the incoming packet` (not secure)	This message can be safely ignored.
6441349	The system may hang if there is an I/O error in the system.	None available at this time. This bug has been fixed in Solaris 10 8/07.

6459540	The DAT72 internal tape drive on SPARC Enterprise M4000/M5000 may time out during tape operations.	Add the following definition to `/kernel/drv/st.conf`:
		`tape-config-list =`
		`"SEAGATE DAT  DAT72-000",`
		`"SEAGATE_DAT____DAT72-000",`
		`"SEAGATE_DAT____DAT72-000";`
		`SEAGATE_DAT____DAT72-000=`
		`1,0x34,0,0x9639,4,0x00,0x8c,0x8c,`
		`0x8c,3;`
		There are four spaces between SEAGATE DAT and DAT72-000.

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround
6466617	Performing a hot plug operation with the PCI-Express slot too quickly interrupts a PCI leaf reset and fails, creating a cfgadm: Component system is busy error.	Pause a few seconds between the issue of each `cfgadm -c` command.

6472153	If you create a Solaris Flash archive on a non-SPARC Enterprise M4000/M5000 sun4u server and install it on a SPARC Enterprise M4000/M5000 sun4u server, the console's TTY flags will not be set correctly. This can cause the console to lose characters during stress.	Just after installing Solaris OS from a Solaris Flash archive, telnet into the SPARC Enterprise M4000/M5000 server to reset the console's TTY flags a follows:
		`# sttydefs -r console`
		`# sttydefs -a console -i "9600 hupcl opost onlcr crtscts" -f "9600"`
		This procedure is required only once.

6481002	Installing the Solaris from the network using certain PCI-Express cards may cause a panic.	If you are using a Sun PCI-E Dual Gigabit Ethernet Adapter MMF card or a Sun PCI-E Dual Gigabit Ethernet Adapter UTP card, do not install the Solaris using either of these cards. Instead, use other network devices, such as the onboard Gigabit Ethernet or another network device.
6485555	On the SPARC Enterprise M4000/M5000 servers, On-board Gigabit Ethernet NVRAM corruption could occur due to a race condition. The window of opportunity for this race condition is very small.	None available at this time. This bug has been fixed in Solaris 10 8/07.
6495303	The use of a PCIe Dual-Port Ultra320 SCSI controller card (SG-(X)PCIE2SCSIU320Z) in IOU Slot 1 on a SPARC Enterprise M4000/M5000 server may result in a system panic.	Do not use this card in IOU Slot 1 on a SPARC Enterprise M4000/M5000 server. This bug has been fixed in Solaris 10 8/07.

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround

6496337	The "cpumem-diagnosis" module may fail to load after uncorrectable error(UE) panic.
	Systems will function correctly but events normally automatically diagnosed by FMA using this module will require manual diagnosis.
	Example:
	`SUNW-MSG-ID: FMD-8000-2K, TYPE: Defect, VER: 1, SEVERITY: Minor`
	`EVENT-TIME: Thu Feb 15 15:46:57 JST 2007`
	`PLATFORM: SUNW,SPARC-Enterprise, CSN: BE80601007, HOSTNAME: col2-ff-em7-d0`
		If problem occurred, implement the following workaround:
		1. Remove the following file.
		`# rm /var/fm/fmd/ckpt/cpumem-diagnosis/cpumem-diagnosis`
		2. Restart fmd service.
		`# svcadm restart fmd`
		
		To avoid this problem in advance, add "rm -f /var/fm/fmd/ckpt/cpumem-diagnosis/cpumem-diagnosis"in /lib/svc/method/svc-dumpadm file as below.
		
		`#`
		`# We haven't run savecore on a dump device yet`
		`#`
		`savedev=none`
		
		`rm -f /var/fm/fmd/ckpt/cpumem-diagnosis/cpumem-diagnosis`
		
		`#`
		This bug has been fixed in Solaris 10 8/07.

6498283	Using the DR `deleteboard`(8) command while psradm operations are running on a domain might cause a system panic.	There is no workaround. Check for the availability of a patch for this defect. This bug has been fixed in Solaris 10 8/07.

6499304	CPU isn't offlined and unexpected message is displayed on console when many correctable error(CE) occurs.
	Example:
	`SUNW-MSG-ID: FMD-8000-11, TYPE: Defect, VER: 1, SEVERITY: Minor`
	`EVENT-TIME: Fri Feb 2 18:31:07 JST 2007`
	`PLATFORM: SPARC-Enterprise, CSN: BE80601035, HOSTNAME: FF2-35-0`
		Check CPU status on XSCF.
		This bug has been fixed in Solaris 10 8/07.

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround

6502204	Unexpected error messages may be displayed on console on booting after CPU UE panic.
	Example:
	`SUNW-MSG-ID: FMD-8000-11, TYPE: Defect, VER: 1, SEVERITY: Minor EVENT-TIME: Tue Jan 9 20:45:08 JST 2007`
	`PLATFORM: SUNW,SPARC-Enterprise, CSN: 2030636002, HOSTNAME: P2-DC1-16-d0`
		If you see unexpected messages, use the XSCF command `showdomainstatus`(8) to check system status on XSCF.
		This bug has been fixed in Solaris 10 8/07.

6502750	Notification message for inserted or removed card by PCI hot plug may not output.	None available at this time. This bug has been fixed in Solaris 10 8/07.
6508432	Many correctable errors (CE) may occur, and despite these are the correctable errors, domain may panic.	Set the following to /etc/system and then reboot the domain: `set pcie:pcie_aer_ce_mask = 0x2001` This bug has been fixed in Solaris 10 8/07.
6508434	The domain may panic when an additional PCI-X card is installed or a PCI-X card is replaced by using PCI hot plug.	Do not insert a different type of PCI-X card on the same PCI slot card by using PCI hot plug. This bug has been fixed in Solaris 10 8/07.
6509337	s10s_u3 wanboot fails - The server returned 416: Requested Range Not Satisfiable.	None available at this time.
6510779	On a large single domain configuration, the system may incorrectly report very high load average at times.	There is no workaround. Check for the availability of a patch for this defect.
6510861	When Dual-Channel Ultra320 SCSI Card (SE0X7SC2F, SE0X7SC2X) is mounted, correctable errors(CE) occur and system may panic.	To mask these errors with Dual-Channel Ultra320 SCSI Card (SE0X7SC2F, SE0X7SC2X), add the following entry to the `/etc/system` file and then reboot the system: `set pcie:pcie_aer_ce_mask = 0x31c1` This bug has been fixed in Solaris 10 8/07.
6511374	Unexpected error messages may be displayed on console after changing the system configuration. Example: `WARNING: Translation error source /LSB0/B0/0, PA 3c000000000, target /LSB0/B0/20000000`	This message can be safely ignored.

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround
6515648	"Replumb Failed" error appears when dr@0:SB1::memory fails.	Once the DR operation is complete, it can be plumbed up manually. Example steps to re-plumb the interface manually: # ifconfig *interface* plumb *xxx.xxx.xxx.xxx* netmask + broadcast + up # ifconfig *interface* group *group-name* # ifconfig *interface* addif *xxx.xxx.xxx.xxx* -failover deprecated up This workaround assumes that the /etc/hostname.*interface* file is correctly configured for the IPMP group and does not need any modification. The IP addresses used in the example above should match what was previously used and what matches the /etc/hostname.<*interface*> file.
6516135	Ap_Id format and devices may not be shown correctly by cfgadm(1M).	Use the following operations to display all of the PCI slots. 1) devfsadm (at Solaris prompt) 2) cfgadm
6519290	Large amounts of I/O on swap devices can cause the system to appear hung by over welling the I/O system. The amount of I/O required can be generated through a number of ways, eg memory shortage, heavy use of /tmp etc.	Set the following to /etc/system and then reboot the domain: set maxfastscan=0x2000
6520990	Domain may cause a panic when deleteboard(8) command for kernel board by using Dynamic Reconfiguration (DR).	To mask this error, add the following entry to the /etc/system file. set drmach:fmem_timeout = 30 This bug has been fixed in Solaris 10 8/07.
6522017	DR and ZFS may not be used in the same domain.	Reduce the amount of kernel memory that ZFS can allocate by setting the zfs_arc_max parameter in the /etc/system file. The following example sets the maximum size to 512 Mbytes. set zfs_arc_max = 0x20000000

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround
6522433	After the CPU hardware error occurred, the `fmdump`(1M) command on the domain may display an incorrect faulty component.	Check system status on XSCF.
6527811	The `showhardconf`(8) on XSCF can not display PCI card information that is installed in External I/O Expansion Unit, if the External I/O Expansion Unit is configured using PCI hotplug.	There is no workaround. When each PCI card in the External I/O Expansion Unit is configured using PCI hotplug, the PCI card information is displayed correctly.
6530178	DR `addboard`(8) command can hang. Once problem is observed, further DR operations are blocked. Recovery requires reboot of the domain.	There is no workaround. This bug has been fixed in Solaris 10 8/07.
6529714	Warning messages occur while trying to configure more than four X4447A-Z or X1027A-Z1 cards into one I/O Boat.	No workaround available at this time.
6530288	Ap_Id format may not be shown correctly by `cfgadm`(1M) command.	None available at this time. This bug has been fixed in Solaris 10 8/07.
6530753	Some of the PCI slots in the External I/O Expansion Unit PCI slots are not displayed during a normal boot operation.	Use one of the following operations to display all of the PCI slots. • `boot -r` (at open boot prompt) • `devfsadm -C` (at Solaris prompt) • `cfgadm` (twice at Solaris prompt)
6531036	The error message `network initialization failed` can appear repeatedly after boot net installation.	There is no workaround.
6531668	System hangs when executing parallel hot plug operation with SP DR in suspend phase.	No workaround available at this time.

6532215	volfs or dscp service may fail when domain is booted.
	
	`svc:/platform/sun4u/dscp:default: Method "/lib/svc/method/svc-dscp start" failed with exit status 95.`
	
	`svc:/system/filesystem/volfs:default: Method or service exit timed out. Killing contract 59.`
		Restart the service if the failure is observed. To avoid the problem, issue the following commands.
		
		`# svccfg -s dscp setprop start/timeout_seconds=count: 300`
		`# svccfg -s volfs setprop start/timeout_seconds=count: 300`
		`# svcadm refresh dscp`
		`# svcadm refresh volfs`

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround
6534471	Domain may panic.	Add the following line to /etc/system and reboot the domain. `set heaplp_use_stlb=0` This bug has been fixed in 125100-06 and Solaris 10 8/07.
6535564	PCI hot plug to PCI slot #0, #1 or External IO Expansion Unit may fail on XSB added by DR.	There is no workaround. Use DR instead of PCI hot plug if need to add or remove PCI card on the XSB. This bug has been fixed in Solaris 10 8/07.

6536564	`showlogs`(8) and `showstatus`(8) command on XSCF might report wrong I/O component due to wrong diagnosis by Solaris Fault management Architecture when faults in I/O devices occur.	To avoid this problem, issue the following commands on the domain.
		`# cd /usr/platform/SUNW,SPARC-Enterprise/lib/fm/topo/plugins`
		`# mv ioboard.so ioboard.so.orig`
		`# svcadm restart fmd`
		If the following messages are displayed on the domain, contact a sales representative or a certified service engineer.
		Example:
		SUNW-MSG-ID: SUNOS-8000-1L, TYPE: Defect, VER: 1, SEVERITY: Minor
		EVENT-TIME: Sun May 6 18:22:24 PDT 2007
		PLATFORM: SUNW,SPARC-Enterprise, CSN: BE80601007, HOSTNAME: sparc
		This bug has been fixed in 125369-05.

6537511	Bluetooth partner is hung during security tests execution	Restart application server
6539084	There is a low probability of a domain panic during reboot when the Sun Quad GbE UTP x8 PCIe (X4447A-Z) card is present in a domain.	There is no workaround. This bug has been fixed in 125670-01.

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround
6539909	Do not use the following I/O cards for network access when you are using the boot net install command to install the Solaris OS: • X4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z/X1027A-Z, PCIe Dual 10 Gigabit Ethernet Fiber XFP	When running Solaris 10 11/06, use an alternate type of network card or onboard network device to install the Solaris OS via the network.
6542632	Memory leak in PCIe module if driver attach fails.	There is no workaround. This bug has been fixed in Solaris 10 8/07.
6545143	When kcage daemon is expanding the kcage area, if the user stack exists in the expanded area, its area is demapped and might cause a ptl_1 panic during the flushw handler execution.	There is no workaround. Check for the availability of a patch for this defect.
6545685	If the following message displayed on the OS console, memory degradation or XSB deconfiguration may occur in the subsequent reboot. Example: mc-opl: WARNING: mc-opl rewrite timeout on /LSB0/B0	Add the following to `/etc/system` and then reboot the domain: `set mc-opl: mc_max_rewrite_loop = 20000`
6546188	The system panics when running hotplug (`cfgadm`(1M)) and DR operations (`addboard`(8) and `deleteboard`(8)) on the following cards: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	There is no workaround. For Solaris 10 8/07, check for the patch 127741-01 for this defect. For Solaris 10 11/06, check for the patch 125670-04 for this defect. Note: See CR ID 6608404 regarding issues with hot-plug of these cards in slot 1.
6551356	The system panics when running hotplug (`cfgadm`(1M)) to configure a previously unconfigured card. The message "WARNING: PCI Expansion ROM is not accessible" will be seen on the console shortly before the system panic. The following cards are affected by this defect: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	Perform `cfgadm -c disconnect` to completely remove the card. After waiting at least 10 seconds, the card may be configured back into the domain using the `cfgadm -c configure` command. Check for the patch 127741-01 for this defect.

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround
6556742	The system panics when DiskSuite can not read the metadb during DR. This bug affects the following cards: • SG-XPCIE2FC-QF4, 4Gb PCI-e Dual-Port Fibre Channel HBA • SG-XPCIE1FC-QF4, 4Gb PCI-e Single-Port Fibre Channel HBA • SG-XPCI2FC-QF4, 4Gb PCI-X Dual-Port Fibre Channel HBA • SG-XPCI1FC-QF4, 4Gb PCI-X Single-Port Fibre Channel HBA	Panic can be avoided when a duplicated copy of the metadb is accessible via another Host Bus Adaptor. Check for the patch 125166-06 for this detect.
6559504	Messages of the form nxge: NOTICE: nxge_ipp_eccue_valid_check: rd_ptr = nnn wr_ptr = nnn will be observed on the console with the following cards: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	These messages can be safely ignored. For Solaris 10 8/07, check for the patch 127741-01 for this defect.
6563785	Hot-plug operation with the following cards might fail if a card is disconnected and then immediately reconnected: • SG-XPCIE2SCSIU320Z Sun StorageTek PCI-E Dual-Port Ultra320 SCSI HBA • SGXPCI2SCSILM320-Z Sun StorageTek PCI Dual-Port Ultra320 SCSI HBA	After disconnecting a card, wait for a few seconds before re-connecting. Check for the patch 127750-01 for this detect.
6564332	Hot-plug operations on Sun Crypto Accelerator (SCA)6000 cards can cause SPARC Enterprise M8000/M9000 servers to panic or hang.	Version 1.0 of the SCA6000 driver does not support hot-plug and should not be attempted. Version 1.1 of the SCA6000 driver and firmware supports hot-plug operations after the required bootstrap firmware upgrade has been performed. Note: See CR ID 6619344 for issues with hotplug of Sun Crypto Accelerator (SCA) 6000 cards in slot-1.
6564934	Performing a DR `deleteboard`(8) operation on a board which includes Permanent Memory when using the following network cards results in broken connections: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	Re-configure the affected network interfaces after the completion of the DR operation. For basic network configuration procedures, refer to the `ifconfig` man page for more information. Check for the patch 127741-01 for this detect.

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround
6568417	After a successful CPU DR `deleteboard`(8) operation, the system panics when the following network interfaces are in use: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	Add the following line to `/etc/system` and reboot the system: `set ip:ip_soft_rings_cnt=0` Check for the patch 127111-02 for this detect.
6571370	Use of the following cards have been observed to cause data corruption in stress test under laboratory conditions: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	Add the following line in `/etc/system` and reboot the system: set `nxge:nxge_rx_threshold_hi=0` For Solaris 10 8/07, check for the patch 127741-01 for this defect. For Solaris 10 11/06, check for the patch 125670-04 for this defect.
6572827	On SPARC Enterprise M8000/M9000 servers, one of the columns in the IO Devices section of the output from `prtdiag -v` is "Type". This reports "PCIe", "PCIx", "PCI" or "UNKN" for each device. The algorithm used to compute this value is incorrect. It reports "PCI" for PCI-X leaf devices and "UNKN" for legacy PCI devices.	There is no workaround.
6589546	`prtdiag`(8) command does not show all I/O devices of the following cards: • SG-XPCIE2FC-EM4 Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA • SG-XPCIE1FC-EM4 Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-E HBA	Use `prtdiag -v` for full output.
6589833	The DR `addboard`(8) command might cause a system hang if you are adding a Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA card (SGXPCIE2FC-QF4) at the same time that an SAP process is attempting to access storage devices attached to this card. The chance of a system hang is increased if the following cards are used for heavy network traffic: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	There is no workaround. Check for the availability of a patch for this defect.

TABLE 7 Specific Issues and Workarounds Concerning Solaris *(Continued)*

CR ID	Description	Workaround
6592302	Unsuccessful DR operation leaves memory partially configured.	Try `deleteboard`(8) again.
6600730	Extra characters appear in a boot message string.	The extraneous characters can be safely ignored.
6608404	Hot-plug of the X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP card in slot 1 might cause other network devices to fail.	To avoid the defect, do not install this card in slot 1.
6619344	The Sun Crypto Accelerator (SCA) 6000 card might not work if hot-plug configured into slot 1.	To avoid the defect, do not hot-plug this card in slot 1.

Identifying Permanent Memory in a Target Board

1. **Log in to XSCF.**
2. **Execute the following command:**

```
XSCF> showdevices -d domain_id
```

The following example shows a display of the `showdevices -d` command where 0 is the *domain_id*.

```
XSCF> showdevices -d 0

...

Memory:
-------
           board    perm      base              domain   target deleted remaining
DID XSB    mem MB   mem MB    address           mem MB   XSB    mem MB   mem MB
00  00-0     8192        0    0x0000000000000000   24576
00  00-2     8192     1674    0x000003c000000000   24576
00  00-3     8192        0    0x0000034000000000   24576

...
```

The entry for column 4 perm mem MB indicates the presence of permanent memory if the value is non-zero.

The example shows permanent memory on 00-2, with 1674 MB.

If the board includes permanent memory, when you execute the `deleteboard`(8) command or the `moveboard`(8) command, the following notice appears:

```
System may be temporarily suspended, proceed? [y|n]:
```

Preparing to Upgrade to XCP 1050 or later

1. **Delete any accounts named "admin".**

   Use the `showuser -lu` command to list all XSCF accounts. Any accounts named admin must be deleted prior to upgrading to XCP 1050 or later. This account name is reserved in XCP 1050 and higher. Use the `deleteuser`(8) command to delete the account.

Upgrading From XCP104x to XCP 1050 or Later The following steps describe the case of upgrading to XCP1060.

Note – LAN connections are disconnected when the XSCF resets. It is recommended to use the XSCF serial connection to simplify the XCP upgrade procedure.

---

1. **Log in to the XSCFU on an account with platform administrative privileges.**
2. **Verify that there are no faulted or deconfigured components by using the `showstatus`(8) command.**

```
XSCF> showstatus
```

The `showstatus`(8) prompt will return if there are no failures found in the System Initialization. If anything is listed, contact your authorized maintenance representative before proceeding.

Note – Take information with using BUI or `snapshot`(8) command. This will be help in case any problem occurred in this procedure.

---

3. **Power off all domains.**

```
XSCF> poweroff -a
```

4. **Confirm that all domains are stopped:**

```
XSCF> showlogs power
```

5. **Move the key position on the operator panel from Locked to Service.**
6. **Collect an XSCF snapshot to archive system status prior to upgrade.**

```
XSCF> snapshot -t user@host:directory
```

7. **The BUI can be used to upload the XCP 1060 upgrade image.**

8. **Update the firmware by using the `flashupdate`(8) command.**

Caution – `flashupdate`(8) will update one bank, reset the XSCF and commence update of the second bank. Verify that the current and reserve banks are both updated. If both banks indicate XCP revision 1060, proceed to the next step.

```
XSCF> flashupdate -c update -m xcp -s version
```

Specify the XCP version to be updated. In this examples, it's 1060.

9. **Confirm completion of the update.**

```
XSCF> showlogs event
```

Confirm no abnormality happens while updating.

10. **Confirm that both the current and reserve banks of XSCFU#0 display the updated XCP versions.**

```
XSCF> version -c xcp

XSCF#0 (Active)
XCP0 (Reserve): 1060
XCP1 (Current): 1060
```

If the Current and Reserve banks on XSCF#0 do not indicate XCP revision 1060, contact your authorized service representative.

11. **Confirm no abnormality occurred by using `showlogs error -v` and `showstatus`(8) commands.**

```
XSCF> showlogs error -v
XSCF> showstatus
```

If you encounter any hardware abnormality of the XSCF contact your authorized service representative.

12. **Power on all domains.**

```
XSCF> poweron -a
```

13. **Log in to XSCFU#0 and confirm all domains start up properly.**

```
XSCF> showlogs power
```

14. **Check that there are no new errors.**

```
XSCF> showlogs error
```

In case an abnormality is encountered, take appropriate maintenance action. If no abnormality is found, proceed to Step 15.

15. **Move position of the key switch on the operator panel from service to lock.**

Software Documentation Updates

This section contains late-breaking software information that became known after the documentation set was published and corrections in the SPARC Enterprise M4000/M5000 servers software documentation.

The corrections for SPARC Enterprise M4000/M5000/M8000/M9000 servers XSCF Reference Manual, if not otherwise specified, also apply to the man pages which XSCF provides. And they supersede the information on the man pages.

TABLE 8 lists known documentation updates.

TABLE 8 Documentation Updates

Title	Page Number	Update
All SPARC Enterprise M4000/M5000 servers documentation		All DVD references are now referred to as CD-RW/DVD-RW.
SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF Reference Manual	`setpowerupdelay`(8) man page	The following description is added in EXTENDED DESCRIPTIOIN: When the power is turned on from the operator panel, the wait time and warm-up time that you set are ignored. If you have set these times and wish to observe them at startup, perform the `poweron`(8) command.
	`setupplatform`(8) man page	The `-p user` option requires `useradm` privileges. The `-p network` option requires either `platadm` or `fieldeng` privileges. The `-p altitude` option requires `platadm` privileges. The `-p timezone` option requires `platadm` privileges.